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Fax Cover Sheet

DATE:	13 February 1997	**TIME:**	5:26 PM
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FROM:	Christopher A. Wagner Scientific-Atlanta, Inc.	**PHONE:** **FAX:**	770-903-6596 770-903-6599
RE:	Comments of Scientific-Atlanta, Inc. on the encryption regulations		
CC:	Distribution		

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Scientific-Atlanta, Inc. recommends the following amendments to the proposed encryption regulations.

Proposed amendments:

1. In Supplement No. 6 to Part 742 - Guidelines for Submitting a Classification Request for a Mass Market Software Product That Contains Encryption (page 25 of November 26, 1996 draft), the exemption for mass market software should be expanded to include computer software that is available to the public via sales over broadband networks, so that broadband networks are not treated any differently than retail outlets.

2. In Part 774 - License Exceptions (page 36 of November 26, 1996 draft), the exemption "c." should be expanded to include both "transmitting and receiving equipment for radio broadcast, pay television or similar restricted audience television of the consumer type, where the digital encryption and decryption are limited to video, audio or management functions". The limitations of the use of the radio and television equipment for video, audio, or management functions should provide sufficient protection that this equipment will not not be used for illegal purposes. Whether the equipment is transmitting or receiving equipment as long as it is being used for radio and television broadcasting of the consumer type, with representations from the end-users that the equipment will be employed for those uses, there appears to be no compelling interest to restrict the exportability of such equipment. In fact, many of the companies using this equipment are U.S. programmers and broadcasters in the process of internationalizing their businesses who scramble the transmision signal to protect their right to derive revenue from their intellectual property and who prefer to purchase the transmission and reception equipment from their traditional U.S. vendors instead of being forced to find a source for such equipment outside the U.S. The obvious technical benefit of digital scrambling for the U.S. programmers and broadcasters is that by employing digital compression algoritms, the broadcasters can reduce satellite transponder costs which enhances their competitiveness in the global marketplace.

3. The regulations should also contain an exemption for equipment; specially designed and limited for use in digital pay television or similar restricted audience television where digital encryption is limited to 56-bit DES or equivalent strength. Developing a key escrow program for this type of equipment makes little sense; most of the information transmitted over these systems consists of television signals which are available to anyone who pays for the service. The U.S. has a vital interest in the spread of this technology which more than counterbalances any danger that the cryptography in these devices could be used for illicit or dangerous purposes. Determined foreign governments have ample access to these technologies and can easily find and deploy encryption that is widely available through other means to accomplish their desired purposes. U.S. equipment which provides for key escrow will be severely handicapped in the world market, because it carries the stigma of "FBI inside".

Justification for Changes in Export Control Regulations

Export control regulations need to be modified to reflect the reality that telecommunications equipment and products will be increasingly: digital. While this move to digital has been overhyped by some manufacturers and technology companies in the past few years, the recent 60-85% drop in chip prices will drive the movement towards digitization more rapidly than most observers now think.

Even prior to the end of the Cold War, the government moved to; deregulate products such as cable set-top boxes, headend and transmission equipment for cable systems and satellite receiving and transmitting equipment. These changes were made in part because these technologies have been instrumental in spreading freedom and democracy throughout the world. Many of these current products and most of the next generation of these products will include digital technology. Unless export control regulations are modified, the current export control regime will recapture equipment that was deregulated even before the end of the Cold War.

Licensing these technologies makes absolutely no sense for exports to much of the world, especially since most major countries are now part of the free world. In addition, those countries for which the most restrictive controls have been applied are today the most problemsome. The toughest controls on telecommunications equipment over the past few decades have been applied to countries such as North Korea, Cuba, Libya, and Syria. Yet, these countries remain among the most communist or terrorist states in the world. By contrast, countries in Eastern Europe which were not subject to the same stringent controls have become free and democratic.

Even the traditional arguments about rogue states and terrorist nations do not apply to satellite and cable television technology. For example, China and Iran are two of the countries that currently are being the most closely monitored for export control purposes. Yet, both of these countries have attempted to outlaw satellite dishes and cable television programming as a means of increasing state control over their people. U.S. export restrictions which limit the export of there technologies are, paradoxically, aiding and abetting the policies of these regimes which the controls are purportedly attempting to undermine.

The importance of encryption in security pertains not just to the network, but to the intellectual property of what is transmitted over the network. Encouraging encryption exports is of great benefit to holders of U.S. copyrights such as movie and television studios, music producers and entertainment software producers. This content is widely distributed over broadband networks. Weak encryption puts U.S. content at risk for increased piracy, illegal duplication and distribution and other intellectual property violations.